DATE OF DEPOSIT: February 28, 2002

- 28 -

## DUAL-IMAGING OPTICAL SYSTEM

## Abstract of the Disclosure

An optical imaging system especially for 5 microlithography includes a first imaging system forming an intermediate image of an object, and a second imaging system forming, on a surface, an image of the intermediate image. A reflective surface directs light from the first imaging system to the second imaging system. An aspherical corrective optical surface is located at or near the 10 location of the intermediate image for correcting aberrations such as high-order distortion, aberrations due to accumulation of manufacturing tolerances, and spherical aberration. The first imaging system comprises a positive 15 power refractive element and a concave mirror. The second imaging system comprises refractive elements and no concave mirror.